

# **ASSISTIVE TECHNOLOGY & ALZHEIMER'S DISEASE**

**A Resource Guide for Caregivers**



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## INTRODUCTION

Alzheimer's presents significant challenges to the person diagnosed with the disease and to that individual's primary caregivers – typically the spouse or adult child. Alzheimer's disease is a progressive illness that disables the people who have it. However, most people, regardless of disease or disability, want to live as independently as possible and enjoy the freedom of doing things for themselves. Despite the disabling effects of Alzheimer's, there are many ways people with this disease can prolong their independence. That is what this resource guide is all about: being as independent as possible, for as long as possible with Alzheimer's disease.

You will benefit most from this resource guide if you have at least a basic understanding of Alzheimer's disease. If you are not familiar with Alzheimer's disease you may want to call the *Desert Southwest Chapter of the Alzheimer's Association* at (602)528-0545, to learn about Alzheimer's disease in greater detail.

Alzheimer's disease is a progressive process; challenges become greater over time. Alzheimer's disease is characterized by the degeneration of nerve cells in the brain that control learning and memory. Over time the disease will affect one's ability to think, reason, remember and communicate and will eventually affect judgment and social behavior. Alzheimer's affects people in different ways. Not everyone has the same symptoms; the progression of the disease varies from person to person. Even the rate of progression differs among people. The symptoms of Alzheimer's disease at any stage may overlap with symptoms from another stage or may continue through all stages.

While there is not yet a cure for Alzheimer's disease there is help. What kind of help? One area for consideration is assistive technology (AT). Assistive technology can soften the effects of the disease for individuals with Alzheimer's and may help them to remain independent longer and with getting away from

the stuffy name. Most people who use assistive technology call it "A.T." If you wear glasses you are using AT. Have you ever used a Lazy Susan to make it easier for you to reach something? You were using AT. See? You've already been using assistive technology.

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## WHAT IS ASSISTIVE TECHNOLOGY?

**Assistive Technology is officially defined as,** *"Any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional capabilities of individuals with disabilities. Assistive technology services directly assist an individual with a disability in the selection, acquisition, or use of an assistive technology device."*

Think of it as anything (devices, equipment, gadgets, etc.) that helps a person to be more independent and safely self reliant for as long as possible. AT includes a broad range of devices and products – from simple items to complex equipment. Assistive technology can be something as uncomplicated as a calendar to help remember appointments, or assistive technology could be a portable ramp that makes it easier (and safer) for someone in a wheelchair to get in and out of the house. It can also be a vibrating watch that reminds a person when it is time to take medication or to eat. Assistive technology devices work by either **enhancing** an individual's existing abilities or by **compensating** for absent or diminished skills. Assistive technology should be viewed as a valuable support that may allow a person with Alzheimer's disease to remain at home in familiar surroundings for a longer period of time.

Assistive technology can be a way to soften the effects of Alzheimer's disease. In this booklet you will find examples of assistive technology and resources, (names, telephone numbers and

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web addresses) where you can go to get more detailed information, such as the *Alzheimer's Association, Desert Southwest Chapter*.

Because there are literally thousands of AT products, this resource guide can only provide you with a range of examples of AT appropriate for people with Alzheimer's disease. ***Inclusion of products, vendors or organizations in this guide is for descriptive or informational purposes only and does not imply endorsement by the Arizona Technology Access Program, the Desert Southwest Chapter of the Alzheimer's Association or the Aging and Adult Administration of the Arizona Department of Economic Security.***

Many professionals characterize Alzheimer's disease by referring to three stages of progression – early, middle, and late. The stages are used to present an idea of some of the challenges a person with Alzheimer's disease will face. Generally people in the first and second stage of Alzheimer's disease may benefit the most from the use of assistive technology described in this guide. When a person reaches the third stage of Alzheimer's disease, some types of AT may still be beneficial, but generally a person in the third stage of the disease requires constant care and attention, usually at a residential facility.

Remember, no two people are alike, so not everyone can or will benefit from each type of assistive technology in each stage. And then there are others who will find assistive technology to be helpful. That's the key – use what is helpful. In fact, you will probably find a number of items in this booklet helpful to people who *don't* have Alzheimer's. Don't worry about what AT a person at any stage of Alzheimer's disease will use. You want to paint your toilet seat orange? So what? If it is helpful, use it! (More on orange toilet seats later.) Now let's look at some of the challenges and how AT can help.

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## THE EARLY STAGE

In the Early Stage family, friends and co-workers begin to notice problems with memory and organization.

People in the first stage of Alzheimer's disease may have memory problems or difficulty finding the right word or the correct name for something. For example a person with Alzheimer's may forget the word "hairbrush" and instead describe it as, "that thing for my hair". They may not remember the names of the people they've just met or they may read something and completely forget what was read. They may frequently misplace or lose things.

During this stage of Alzheimer's disease, people will also encounter problems with organization such as finding it difficult to plan a trip, or shopping for groceries, paying bills or managing finances. Problems with organization may also show up at work.

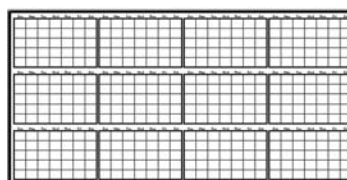
Examples of assistive technology that may assist with memory:



**Calendars** - Here's a calendar with extra large squares and 260 colorful appointment and activity stickers. It mounts on the wall

and will help keep track of appointments, birthdays and other important events. Mounted on the wall, the calendar won't be easily ignored. Research tells us that bright colors attract our attention.

<http://www.addconsults.com>



**Erasable Undated Wall Calendar** - This wall calendar is erasable. The months and or the days can be

written in individually with different color

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markers and with special designs to attract attention.

<http://www.addconsults.com>

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**All Out of Grocery Shopping List -**

Shopping for yourself or your family is an act that reaffirms independence. When memory is a problem, here is a reusable grocery shopping list. When you run out of an item, simply mark it

on the list so you're sure to remember it when you're at the supermarket. This list attaches to the refrigerator with two strong magnets.

<http://www.addconsults.com>

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**Picture Phone -** For people who have trouble remembering numbers.

This phone has big squares with pre-programmable and removable buttons.

Pictures of family and friends can be pasted under the clear buttons. Just press the picture of the person you want to call!

<http://www.dynamic-living.com>

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**Personal Digital Assistant** – This is a memory device that can easily fit in a shirt pocket or a handbag. You can record all your appointments, addresses and phone numbers of friends, family and doctors. You can program it to remind you of multiple appointments everyday of the year. It has an alarm to remind you to look at your calendar so you won't forget an appointment.

<http://www.addconsults.com>

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**Simple TV 6 Button Remote - Simplify!** One of the ways to reduce confusion regarding organization is to simplify and to

seek simple things. This type of remote has a minimum



number of buttons and thus reduces confusion.

It also has high contrast colors. Increased contrast is helpful to people who experience age-related changes in vision. As we age we can use the extra help with our vision.

<http://www.dynamic-living.com>

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**Vibrating medication watch -**

Often people with Alzheimer's disease are taking a variety of medications. A vibrating watch is a silent reminder that is difficult to ignore. In addition,

as we age we often lose the ability to hear the tiny chimes of a watch. A vibrating watch solves the problem.

<http://www.addconsults.com>

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Examples of assistive technology that may assist with organization:



**Pill organizer and alarm -**

Some people prefer to keep their pills sorted by day and/or by time. A pill organizer alerts you when it is time to take medication. Pre-sorted pills reduce or eliminate the dilemma of which pills to take.

<http://www.addconsults.com>

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**To Do List -** Written lists of chores and tasks help people remain active and on task. As chores are accomplished, they can be checked off.

<http://www.addconsults.com>

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**Orientation Clock -**

Telling time doesn't remind us of the date. An orientation clock, one with time, date and day of the week helps to keep us

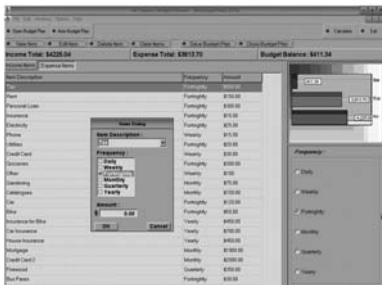
current. Appointments, phone calls, television programs, and special events are not as likely to

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be missed when a clock tells us the time and reminds us of the date.

<http://www.dynamic-living.com>

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### **Budget Planner -**

One of the common ways in which a person begins to exhibit symptoms of Alzheimer's disease is problems brought on by

personal budget mismanagement related to memory and organizational challenges. A budget planner can help organize how your budget is planned and bills are paid.

<http://www.addconsults.com>

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**Organizer for TV Remote, glasses, magazines** - Place it over the arm of chairs, sofa, or at bedside between the mattress and box spring. It is useful for keeping

magazines, glasses, and remote control in a consistent, easy to remember location.

<http://www.addconsults.com>

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## **THE MIDDLE STAGE**

At the middle or moderate stage memory gaps and decreased ability to perform daily tasks are obvious to family, friends, co-workers and casual acquaintances. At this point help with the tasks of daily living are needed and remembering becomes more difficult. There may be major changes in personality.

Memory becomes more of an issue. At this stage a person with Alzheimer's disease may not remember their address or telephone number or the names of family members. They may become confused about where they are or even the season of the year. People in the middle

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stage of Alzheimer's will need assistance with dressing, eating, using the bathroom and bathing. Often people will wander off and become lost. Caregivers will need to take safety precautions in this middle stage.

In addition to the assistive technology already listed, the following are examples of assistive technology that may be used in specific areas of the house for specific activities.

### **MEALS**



**No-Spill Cup** - For people with unsteady hands, or poor coordination, use of a lidded cup minimizes spills and the need to change clothing and cleanup the meal time area.

<http://www.maxiaids.com>

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**Dycem No Slip Pad** - It's an inexpensive item that serves a big purpose; it keeps things from slipping. Many caregivers use this under a dinner plate to keep it from moving on the table.

<http://www.maxiaids.com>

### **Safety Tip**

► Remove the knobs from the stove and burner covers and place them over the range.

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**Lip Plate** - The raised lip on this plate serves as a bumper. Food can be pushed to the edge of the lip and scooped up in a fork or spoon with less spillage.

<http://www.maxiaids.com>

It is a good idea to use a plastic table cloth. It will be much easier to clean, but it can also serve another purpose. Color contrast is important. Some people with middle stage Alzheimer's disease are frequently not interested in eating. A

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white plate on a red table cloth will provide increased contrast. Research has found that people with Alzheimer's eat more when there is a bold contrast of solid colors between the plate and the place mat or the table cloth.

## DRESSING

Clothing with Velcro and/or elastic waistbands in place of zippers and buttons is less confusing and may enable the person to remain more independent in dressing.

## BATHROOM

It is not uncommon for someone with Alzheimer's disease to enter the bathroom and forget why he or she is there. Colored tape on the floor can help direct a path to the bathroom. Also colored tape around the toilet will help identify it, as will a colored toilet seat or colored toilet water. Contrast is the key here. Painting the toilet seat a bold color – orange if you like – will help make it stand out and may remind the person with Alzheimer's disease of the reason for going into the bathroom.

**Grab Bar** – A grab bar is an important item for most people to have as they



become older. The grab bar attaches to the wall in front of the toilet, offering a secure bar to hold onto while a person lowers themselves down or pulls themselves up. Grab bars are also an important addition to bathtubs and showers. <http://www.thealzheimersstore.com>

### Safety Tip:

► Towel racks should never be used as grab bars.



**Toilet Monitor** – When a person gets up, or falls off the toilet, the monitor sounds an alert which stays on until turned off.

<http://www.smartcaregivercorp.com>



**Toilet Flood Alarm** – Know instantly if the toilet overflows (perhaps due to a washcloth, adult brief or too much toilet paper placed in the toilet). The alarm will sound a loud alert as soon as it discovers water.

<http://www.thealzheimersstore.com>



**Shower Chair** – A shower chair can be useful for individuals with unsteadiness or poor balance who require seating support when bathing or showering. Caregivers should

also consider a shower chair when they are assisting a person with bathing. This lessens the possibility of falling and injury to both persons.

<http://www.rehabdesigns.com>



**Bath Board** - Clamps on the side of the tub, providing a solution for users who don't require the back support of a transfer bench, but do need to sit while bathing.

<http://www.rehabdesigns.com>



**Drop Arm Commode** – At times it is easier – especially for night time bathroom needs – to put a portable commode (toilet) in the bedroom.

This type of commode has an armrest that can be moved down so

that a person in a wheelchair can slide over to the commode easily. Using a raised toilet seat with armrests may make it easier for the person with Alzheimer's to use the toilet.

<http://www.rehabdesigns.com>



### **Automatic Faucet Control –**

Confusion over which is hot and which is cold can cause a person to become scalded. An automatic faucet control permits automatic control of hot and cold water and it also stops the flow of water once a control lever is released.

<http://www.thealzheimersstore.com>

### **Safety Tips:**

- ▶ Remove the lock on the bathroom door so that a person with Alzheimer's disease doesn't accidentally lock themselves in the bathroom.
- ▶ It is a safe practice to remove all medicine and any chemicals and electric appliances from the bathroom. You may want to put safety locks on the cabinets.
- ▶ Plastic covers are available to mark faucet red and blue for hot and cold.
- ▶ Lower the thermostat on your water heater so that the hot water won't scald.

## **SAFETY**

There are many types of assistive technology that provide additional safety in a variety of circumstances. Here are a few examples:



### **Automatic Wheelchair Brakes -**

Automatic wheelchair brakes/locks help prevent falls in wheelchair users who cannot or do not consistently lock the manual brakes on their wheelchairs. When a person does not remember to engage the wheelchair's manual locks/brakes, the wheelchair may roll away from the person as he or she stands up.

<http://www.abledata.com>



**Magnetic Fall Prevention** – This is a clever device that can be clipped to the back of a person's shirt or blouse. If the person moves to stand up or if the

person should fall from a chair or wheelchair an alarm will sound.

<http://www.smartcaregivercorp.com>

**The Talking Motion Detective-** Many people with Alzheimer's experience interrupted sleep patterns. In simple terms, they don't sleep while family members are asleep. It makes it difficult for caregivers to get a good night's rest if they are worried about a person with Alzheimer's wandering off.



This motion detector will alert caregivers with a pre-recorded message such as "Dad is trying to go out the front door."

<http://www.thealzheimersstore.com>



### **Childproof Refrigerator Latch –**

Refrigerators can contain alcohol, medications, raw meat, spoiled foods and other items that can be harmful to people with Alzheimer's.

<http://www.thealzheimersstore.com>

### **Additional safety tips:**

- ▶ Stairs should have hand rails.
- ▶ An accordion gate helps prevent stair use.
- ▶ If stairs are often used, it is helpful to place bright colored tape on the edge of each riser so that it is easily seen.
- ▶ Access to swimming pools should be locked and using a pool alarm would be a good idea.
- ▶ Nightlight in bedroom and kitchen
- ▶ Chairs should have armrests to provide more stability. Rocking chairs and recliners should be removed from the living room.



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## WHO CAN HELP ME FIND THE RIGHT ASSISTIVE TECHNOLOGY?

Occupational therapists (OTs) can help you find the right types of assistive technology to match your needs. OTs are healthcare professionals who work with people who have Alzheimer's disease. Occupational therapists address physical, environmental and psychosocial factors that may be barriers to independent and safe functioning in daily living activities. You can contact an OT through your doctor, your case manager or through the Arizona Occupational Therapy Association at <http://www.arizota.org>, or the American Occupational Therapy Association at <http://www.aota.org>.

The Arizona Technology Access Program (AzTAP) can also help you to learn about assistive technology no matter where you live in Arizona. AzTAP is a program of Northern Arizona University's Institute for Human Development. As a federally funded program, its mission is to promote awareness of, access to and acquisition of assistive technology devices and services for people with disabling conditions across the age span. For more information call 1-800-477-9921 or go to <http://www.nau.edu/ihd/aztap>.

Remember, there are thousands and thousands of types of assistive technology useful to people with Alzheimer's and their caregivers. As we age, all of us can benefit from assistive technology. Assistive technology doesn't have to be expensive or complex to be of value for maintaining or improving functional abilities and supporting independence. When is the right time to try it? Anytime assistive technology can help is the right time to use it.

## ALZHEIMER'S DISEASE RESOURCES

**Abledata** provides a very large web based resource for assistive technology products. <http://www.abledata.com/>

**ADD Consults** is an excellent source of assistive technology for memory and organizational skills. <http://www.addconsults.com/store/>

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**American Occupational Therapy Association**  
4720 Montgomery Lane  
PO Box 31220  
Bethesda, MD 20824-1220  
(301) 652-2682  
1-800-377-8555 (TTY)  
<http://www.aota.org>

**Arizona Department of Economic Security**  
Aging and Adult Administration Department of Economic Security 1789 W. Jefferson St., 950A  
Phoenix, AZ 85007  
(602) 542-4446  
<http://www.azdes.gov/aaa>

**The Alzheimer's Store** is dedicated to providing unique products and information for those caring for someone with Alzheimer's disease. Every product in the store has been carefully selected to make living with Alzheimer's disease as easy as possible.

12633 159th Court North  
Jupiter, FL 33478-6669  
(800) 752-3238 or (561) 745-0210  
(561) 744-9572 FAX  
<http://alzstore.com>

**Arizona Occupational Therapy Association**  
(ArizOTA)  
P.O. Box 1531  
Glendale, AZ 85311-1531  
(623) 937-0920  
<http://www.arizota.org>

**Arizona Technology Access Program (AzTAP)**  
Northern Arizona University  
Institute for Human Development  
2400 N. Central Ave., Suite 300  
Phoenix, Arizona 85004  
(602) 728-9534 Voice  
(602) 728-9536 TTY  
(602) 728-9353 FAX  
1-800-477-9921 Toll-Free  
<http://www.nau.edu/ihd/aztap>



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**Arizona Telecommunications Equipment Distribution Program** provides free telecommunications equipment to persons who are deaf, hard of hearing or speech impaired.  
1400 W. Washington, Room 126  
Phoenix, Arizona 85007  
(602) 264-6876 TTV/Voice  
1-866-223-3412  
(520 & 928 area codes TTY/Voice)  
<http://www.aztedp.org>

**Desert Southwest Chapter of the Alzheimer's Association**  
1028 E. McDowell Rd.  
Phoenix, AZ 85005  
(602) 528-0545 or Helpline: 1-800-272-3900  
<http://www.alzdsw.org>

**Dynamic-Living.com** offers hundreds of kitchen products, bathroom helpers and unique daily living aids that promote a convenient, comfortable and safe home environment for people of all ages.  
1-888-940-0605 Toll-Free  
<http://www.dynamic-living.com/>

**Find It** sells devices that specialize in locating misplaced items, even people. Ambitious Ideas/  
Freedom Laser Therapy  
720 Wilshire Blvd, Third-Floor  
Santa Monica, CA 90401  
(615) 449-8877 or (310) 458-5558  
(310) 458-5557 FAX  
<http://www.ambitiousideas.com/>

**Maxi-Aids, Inc.** offers an extensive list of independent living assistive technology for sale.  
42 Executive Blvd.  
Farmingdale, NY 11735 USA  
1-800-522-6294 Toll-Free  
<http://www.maxiaids.com>

**Rehab Designs, Inc.** is an excellent source for grab bars, shower chairs, bath benches, commodes, wheelchairs and ramps.  
11700 Commonwealth Drive  
Louisville, KY 402291-888-889-1114 Toll-Free  
<http://www.rehabdesigns.com/>

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**SmartCareGiver Corporation** markets fall prevention and anti-wandering assistive technology.  
1205 N. McDowell Blvd  
Petaluma, California 95454  
1-800-650-3637 Toll-Free  
<http://www.smartcaregivercorp.com>

**Tools for Life**  
Georgia DOL/VR/Tools for Life Program  
1700 Century Circle Suite 300  
Atlanta, Georgia 30345  
Voice: 1-800-497-8665  
Toll-Free TDD: 1-866-373-7778  
Atlanta Metro TDD: (404) 486-6333  
<http://www.gatfl.org>

**ASSIST! To Independence**  
Contact Person: Ann O'Connor  
PO Box 4133  
Tuba City, AZ 86045  
(928) 283-6261 Voice/TTY  
(888) 848-1449 Toll-Free  
**email: [assist01@frontiernet.net](mailto:assist01@frontiernet.net)**

**IHD Assistive Technology Center**  
Institute for Human Development  
Northern Arizona University  
Building 27, Room 171  
PO Box 5630  
Flagstaff, AZ 86011  
(928) 523-5878 Voice  
(928) 523-1695 TTY  
(800) 553-0714 Toll-Free

**Southwest Human Development**  
2850 N. 24th Street  
Phoenix, AZ 85008  
(602) 266-5976 ext. 4125 Voice/TTY  
<http://www.swhd.org>

**Technology Access Center of Tucson (TACT)**  
4710 E. 29th Street, PO Box 13178  
Tucson, AZ 85732-3178  
(520) 519-1776 Voice  
<http://www.ataccess.org>

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